

To: Foresman, Erin[Foresman.Erin@epa.gov]
Cc: Cassandra.Enos@water.ca.gov[Cassandra.Enos@water.ca.gov]
From: Ben Giudice
Sent: Thur 4/23/2015 12:06:27 AM
Subject: RE: BDCP Water Quality

Erin,

Below I've pasted a table of residence times that was supposed to make it into the documentation and that is referenced in the *Microcystis* assessments but that was inadvertently left out. It will be added in revisions. Also, if and when residence time considerations are included in the selenium assessment, it is likely that this table (or one very similar that includes all seasons) will be cited. As I mentioned in our call, I will be working with CH2MHill to figure out just how that will be done. For Alt 4A, the Alt 4 column below is what would be referenced. However, note that a substantial contribution to the increased residence time is the restoration areas, which this modeling includes, but which is not as substantial in Alt 4A.

I hope to tomorrow send you time series plots of the EC at Prisoners Point for the years in which there are exceedances, as we discussed.

Let me know if you have any questions on this.

Table Ms-1. Average Residence Time and Change in Water Residence Time of Delta Subregions in the Summer and Fall *Microcystis* Bloom Periods Under the Nine Project Alternatives Relative to Existing Conditions (EC) and the No Action Alternative (NAA).

Subregions	Season	Months	Average Residence Time (days)		Change in Residence Time vs. EC (days)										A
			EC	NAA	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	
North Delta	Summer	Jun-Aug	33	38	6	10	6	9	6	8	11	7	13	7	
	Fall	Sep-Nov	49	50	1	12	8	11	8	7	6	9	9	6	
Cache Slough	Summer	Jun-Aug	18	21	3	28	21	27	21	21	31	28	41	27	
	Fall	Sep-Nov	46	46	0	-2	-6	-3	-6	-7	-7	0	10	-6	
West Delta	Summer	Jun-Aug	22	24	2	10	7	8	6	7	18	5	11	6	
	Fall	Sep-Nov	25	27	2	9	5	9	5	5	5	7	7	2	
East Delta	Summer	Jun-Aug	22	26	4	18	12	13	12	9	54	10	26	-1	
	Fall	Sep-Nov	15	35	20	18	32	17	33	33	43	40	40	6	
South Delta	Summer	Jun-Aug	8	10	2	9	9	6	8	3	62	15	25	28	
	Fall	Sep-Nov	5	11	6	3	37	3	38	29	74	48	47	28	
Suisun Marsh	Summer	Jun-Aug	51	58	7	-14	-16	-15	-16	-15	-14	-15	-13	-10	
	Fall	Sep-Nov	17	19	2	22	17	22	17	17	15	17	17	21	

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]

Sent: Tuesday, April 21, 2015 8:08 AM

To: Ben Giudice

Subject: RE: BDCP Water Quality

Hi Ben,

I'm sorry I couldn't get my questions listed out for you. I'll call you at 9:00 and we can just talk through them.

Erin

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Ben Giudice [<mailto:Ben@robertson-bryan.com>]

Sent: Monday, April 20, 2015 1:29 PM

To: Foresman, Erin

Subject: RE: BDCP Water Quality

Hi Erin,

Tomorrow is fine. If you do get a chance to send me the questions, that would help me prepare some and hopefully result in better answers. I will get in around 8:30 tomorrow, so let's plan on 9 tomorrow morning, if that works.

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com

From: Foresman, Erin [<mailto:Foresman.Erin@epa.gov>]
Sent: Monday, April 20, 2015 1:07 PM
To: Ben Giudice
Subject: RE: BDCP Water Quality

Hi Ben,

Thanks for your message and sorry I couldn't circle back to you on Friday. I'm on the train to SF right now and have a day packed full of meetings. Can we chat tomorrow morning? I have a 10-11:30 but am free after that. Would you like to talk before or after? Those are not great times, sorry about that. I can also send you a list of questions tonight as I take the train home to make it easier to chat. Some are really easy reference questions.

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Ben Giudice [<mailto:Ben@robertson-bryan.com>]
Sent: Thursday, April 16, 2015 2:02 PM
To: Foresman, Erin
Subject: BDCP Water Quality

Hi Erin,

Cassandra called and asked if I could get in touch with you to discuss your water quality

concerns for BDCP. Do you have time Monday morning 8-10:30 sometime that I could call? If not then, my Tuesday is open until 1 pm.

Thanks.

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com